> As more people think that they've had a "lucky escape," the test becomes more popular

NO HOLDS BARRED Margaret McCartney PPA COLUMNIST OF THE YEAR

Stars shine brighter than evidence

The American actor Ben Stiller has written an essay on prostate specific antigen screening, called *Taking the PSA test saved my life*. He finishes by saying, "I believe the best way to determine a course of action for the most treatable, yet deadly cancer, is to detect it early." The piece prompted widespread, mainly uncritical, media coverage.

The social media star Kim Kardashian promoted Diclegis, a tablet promoted for morning sickness in Canada, on her Instagram feed. The US Food and Drug Administration subsequently told its manufacturers to take "corrective action," as safety information was lacking. It's also clear that the 40 year old study on which the drug's approval was partly based had a lot of data missing, meaning that it shouldn't be used to support the drug's efficiency.

But this is nothing compared with Michael Parkinson's test for prostate cancer ("The test is, if you can pee against a wall from 2 ft, you haven't got it"), or the nonsense on Gwyneth Paltrow's *Goop* website, which has hosted a welter of advice from vaginal steam cleaning to how we can detoxify using the "alive" water in lemons.

Celebrity based medicine may be fact-free. Well intentioned personal stories urging action may unknowingly represent cases of lead time bias.

They may also represent the popularity paradox of poor screening tests, such as PSA screening. This paradox arises because a test with a high false positive rate can lead to people feeling relief at a "lucky escape" when they don't develop a disease, rather than anger at the inaccurate test result. As more people think that they've had a "lucky escape," even if this is from a disease they were never destined to develop, the test becomes more popular as with the PSA test.

Pointing out the harms, flaws, misconceptions, evidence, paradoxes, and boring small print is hard work. I appreciate the efforts many scientists make to correct media wrongs, but corrections are always printed smaller than the headlines. As Brandolini's law states, the amount of energy needed to refute bullshit is of an order of magnitude bigger than that needed to produce it.

What we're doing is clearly not working. We can learn from climate change scientists who have found that scientific facts need to be framed in ways that appreciate different world views, from researchers who have found that evidenced corrections to beliefs may actually backfire and make misconceptions worse.

The challenge for evidence based public science communication is acute, and it must be researched seriously and urgently.

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OBITUARIES

William Perry Kirkwood Calwell

Consultant psychiatrist (b 1926; q Middlesex Hospital, London, 1958; MA, FRCPsych), died from old age and vascular dementia on 29 October 2016

William Perry Kirkwood Calwell did army service in India and Germany from 1944 to 1948 and took a degree in history at Lincoln College, Oxford, in 1951. In the 1960s he held posts at the Maudsley day hospital and the Tavistock Clinic and as medical director of Hoxton and Hounslow child guidance centres. He introduced family therapy to the Tavistock in 1963 and worked with Donald Winnicott. He was a founder member of the Royal College of Psychiatrists and became a fellow of the college in 1988. Perry also belonged to a group of psychiatrists interested in spirituality in its various forms. In retirement he remained active, practising as a psychotherapist and enjoying tennis and golf. He leaves his wife, three children, and five grandchildren.

Mary Calwell

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Colette Denise Gina Le Doux

General practitioner Staffordshire (b 1914; q Royal College of Surgeons in Ireland, 1939; DRCOG, MRCS), d 15 December 2015

French born Colette Denise Gina Le Doux attended a convent school in Kidderminster, where she quickly mastered English. Her first choice of medical school was the University of Birmingham, but after her difficulties with passing her physics exam and the dean's suggestion that she should go home and learn how to cook instead, she applied to the Royal College of Surgeons in Ireland (RCSI), Dublin, continued her medical studies there, and met her future husband, Kevin Alfonsus Farrell. They set up a successful general practice in Brierley Hill in the Midlands. Colette specialised in midwifery and gynaecology and practised medicine into her 70s. Outside medicine she was a keen traveller and an accomplished needlewoman. She leaves four children, seven grandchildren, and one great grandchild.

Lucy Williams

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Gillian Mary Hunt

Academic paediatrician, general practitioner, and clinical assistant in the care of children with spina bifida Addenbrooke's Hospital, Cambridge (b 1922; q Girton College, Cambridge/West Hospital, London, 1946; MDDCH Eng), d 8 November 2016

Gillian Mary Hunt ("Jill") qualified during the second world war, having spent two years at Cambridge, where women reading medicine were tolerated more than accepted. They were not allowed to wear gowns or receive degrees and were addressed by lecturers as "gentlemen" and by male students with unwelcome stamping and applause. Jill pursued a career in academic paediatrics, and her major achievement was a 45 year longitudinal study of 117 consecutive children born with spina bifida since 1970. She was awarded a Cambridge MD in 2012, at the age of 90. Predeceased by her husband, she leaves four children.

Robert Whitaker

Cite this as: *BMJ* 2016;355:i6610

Denis Dewhurst Hilton

District community physician (b 1924; q Manchester 1947; DTM&H), died from bronchopneumonia on 27 September 2016

After national service as a doctor with the Royal Air Force in the Far East and hospital jobs in Manchester, Denis Dewhurst Hilton worked for the Colonial Medical Service in northern Nigeria. He recognised the power of public health to improve lives and moved into leprosy control. After 10 years in west Africa, Denis returned to the UK and took a post in the school medical service in Portsmouth. He continued as medical referee to Portchester crematorium until his late 80s. Denis died at home in the company of a daughter and two granddaughters, who, with help from a team of carers, supported him through the dementia that took the shine off his last few years. His wife, Margaret, a midwife, died in 1999. He leaves five children, 10 grandchildren, and three great grandsons.

David Hilton

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John David Elliott Edwards

Ophthalmologist (b 1925; q Liverpool 1948), d 20 June 2016

John David Elliott Edwards spent four years at St Paul's Eye Hospital, at a time of huge outpatient clinics, where he sat on a raised platform so as to be at the correct height to allow examination of the eyes of each patient as they filed past. He then worked in general practice before taking up an appointment at Victoria Central Hospital, Wallasey, as assistant ophthalmic surgeon. During the 1970s and 80s he established the preschool visual screening programme throughout the Wirral, which runs to this day. He was also instrumental in setting up eye clinics for the workforce at Vauxhall Motors in Ellesmere Port. He retired at age 70 and moved to Nottingham with his wife, Joan. He enjoyed embroidery, making dolls' house furniture, and gardening. Predeceased by Joan in 2012, he leaves two daughters and four grandchildren.

Christine Cripps

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Eric William Taylor

Consultant general surgeon West of Scotland (b 1943; q St Mary's Hospital 1967; FRCS Eng, FRCS Glas), d 4 October 2016

Eric William Taylor was appointed surgical specialist to the Royal Naval Hospital in Gibraltar in 1975. He was given responsibility for the surgical care of 30 000 service personnel and their families. On returning to the UK in 1976 he completed his surgical training. In 1982 he retired from the Royal Navy and moved to a consultant post at the Vale of Leven Hospital in Scotland. He transferred to Inverclyde Royal Hospital in 2001 and retired from the NHS in 2007. An evidence based practitioner, Eric became an international authority on the prevention and treatment of surgical infection. In later years he developed Parkinson's disease, which he bore with dignity, as he did his decline from colorectal cancer. He leaves his wife, Celia; and four children from earlier marriages.

John Williams, Peter Bull

Cite this as: *BMJ* 2016;355:i6611

Denton Cooley

The "best heart surgeon in the world"

Denton Arthur Cooley (b 1920; q Johns Hopkins University, Baltimore, 1944), died at home on 18 November 2016.

Three surgeons—Michael DeBakey, Christiaan Barnard, and Denton Cooley—transformed the treatment of heart disease in the decades after the second world war with their innovations in procedures, devices, and transplantation. Now the last of these giants, Denton Cooley, has died at the age of 96.

Houston was a provincial backwater with a population of 138 000 when Cooley was born there in 1920. He started medical school at the University of Texas Medical Branch at Galveston but later transferred to Johns Hopkins in Baltimore, obtaining his MD in 1944. The military paid for his schooling and deferred induction during the war, but he later served two years as chief of surgery at an army hospital in postwar Austria. He returned to Johns Hopkins for further training and then moved to the Brompton Hospital in London for a year's surgical training with Russell C Brock.

In 1951 he returned to Houston to join the faculty of the Baylor College of Medicine under its new chief of surgery, Michael DeBakey. The situation would provide unprecedented opportunities for the ambitious young doctor.

Leading cause of death

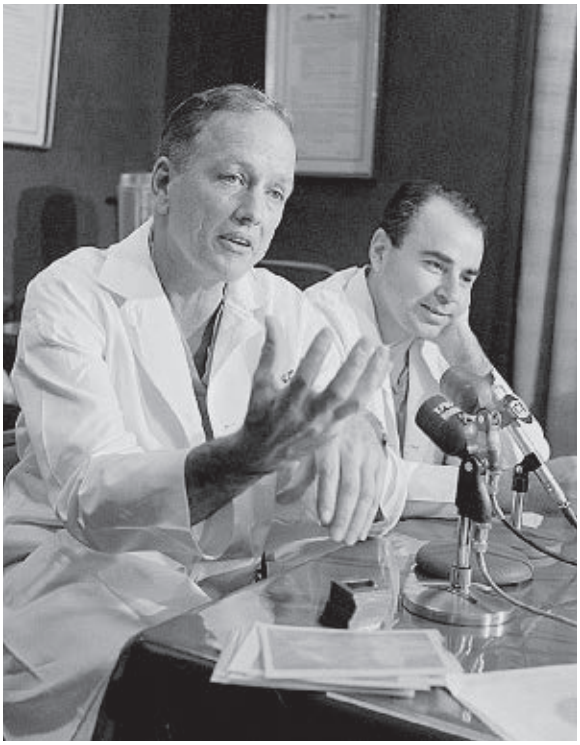
Heart disease had become the leading cause of death in the developed world, and heart specialists prospered. Houston's population had passed half a million by the time Cooley returned in 1951, and the metropolitan area would explode to over six million during his lifetime. Medical facilities were needed to serve the burgeoning population, and Texas wanted the biggest and the best. Unprecedented profits from the oil industry made it possible for the titans of industry to support those expansive dreams. DeBakey and Cooley had opposite temperaments and approaches to their work, yet they managed to coexist at Baylor for 18 years. One measure of their success is that, by 1967, death rates among patients who had heart valve replacement surgery had plummeted from 70% to 8% in just five years.

Cooley took a big step towards independence from DeBakey in 1962, when he established the privately funded Texas Heart Institute at St Luke's Episcopal Hospital, although he continued to teach at Baylor. The relationship deteriorated further when DeBakey began to exclude him from plans to develop a totally artificial heart and a transplant programme.

South African Christiaan Barnard stunned the world in 1967 with the first successful heart transplant. A year later, on 2 May 2016, Cooley became the first to successfully carry out the operation in the US—it was "successful" in that survival was measured in months or years, rather than hours or days. Then in 1969 Cooley implanted the first artificial heart into Haskell Karp, which kept him alive for three days until a matching organ was found and transplanted. Although the operations were successful, the patient soon succumbed to pneumonia.

DeBakey had developed the artificial heart but didn't think that it was ready for human use, and it did not have approval from the US Food and Drug Administration. Cooley essentially purloined it while his senior was out of town and used it without permission, arguing that his patient would die without it.

The American College of Surgeons would censure him for the unauthorised use. DeBakey would not speak to him for nearly four decades. In 1970 their feud even made the cover of *Life* magazine, then one of the most widely read magazines in America. The men made peace shortly before DeBakey died in 2008.



AP/PA

Cooley listed 33 personal firsts in cardiovascular surgery in his memoir, although others may quibble with some of those claims

AP/PA

In the right place, at the right time

Cooley listed 33 personal firsts in cardiovascular surgery in his memoir, although others may quibble with some of those claims. Once, when asked at a medical liability trial if he considered himself to be the best heart surgeon in the world, he answered affirmatively. And when asked if he might be immodest, Cooley replied, "Perhaps, but remember, I am under oath." He continued to operate until the age of 87 and was active within the Texas Heart Institute until his death.

As he grew older, Cooley came to see his legacy as the institute and associated school of surgery, which trained more than 1500 heart surgeons. At one point the institute was performing a tenth of all open heart surgeries in the US and contributed to making Houston a medical destination for the world.

Denton Arthur Cooley was born in Houston, Texas, on 22 August 1920 and died in that same city on 18 November 2016. Predeceased by Louise Thomas, his wife of 67 years, in October 2016, he leaves four daughters, 16 grandchildren, and 17 great grandchildren.

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YANKEE DOODLING
Douglas Kamerow

There's more to Obamacare than health insurance

Will public health, research, and funding for quality improvement also be repealed?

Crowds protest against the repeal of the Affordable Care Act outside Trump Tower in New York

As Donald J Trump took the oath of office to be the 45th US president, Congress had already begun to repeal the Affordable Care Act ("Obamacare").

Despite having a majority in both houses of Congress, Republicans cannot simply repeal the act, because they don't have the "super-majority" of the Senate that would be needed to cut off a Democratic filibuster. They can, however, by invoking an arcane and complex legislative process called "budget reconciliation," limit debate on laws and pass them with their simple majority.

This is the process they have just begun by passing budget resolutions in each house. The catch is that the ultimate repeal legislation can be used only to target certain types of spending and revenues. It won't be as simple as repealing the entire law.

The ultimate repeal legislation can be used only to target certain types of spending and revenues. It won't be as simple as repealing the entire law

Most of the attention has understandably been on which spending related parts of the act's insurance provisions will be repealed. Prior efforts, for example, suggest that federal subsidies for purchasing health insurance, funding for Medicaid expansion, and the requirement that all eligible individuals buy health insurance are likely to go. Similar attention has been focused on what could possibly replace these provisions that would somehow meet Republican goals and not deprive millions of people of continuing health insurance.

Assuming that the Republican majority figures out a way to "repeal and replace" Obamacare, very little attention has been paid to the fate of the many parts of it unrelated to health insurance. Some of these involve government spending as well, and it is unclear whether they will be repealed along with the insurance portions of the law.

For example, Obamacare created a non-profit institute to support patient oriented comparative effectiveness research and funded it by establishing $1bn trust fund and a continuing tax on health insurance policies. Tens of millions of dollars have also gone to federal agencies to help disseminate the results of this research. Should all this be terminated?

ACUTE PERSPECTIVE David Oliver

When are hospital doctors right to challenge families?

I've written before here about the importance of actively involving hospital inpatients' relatives, especially those who play vital and stressful roles as carers, and of ensuring timely and accessible conversations. Inadequate or insensitive communication lies behind many complaints.

But doctors responsible for large numbers of inpatients in overstretched hospitals have obligations to balance. Our primary obligation to the patient is enshrined in professional codes. Then come obligations to all our patients, whether or not they have involved or questioning relatives. Time shouldn't be skewed disproportionately towards a few families at others' expense.

We must weigh the needs of patients who are in beds against those in the wider community

We must also weigh the needs of patients who are currently in beds against all those in the wider community or emergency department, who might need beds more acutely. All this can bring us into conflict with relatives.

Here are just some situations where I think we have a professional duty to negotiate solutions sensitively but sometimes to challenge directly. Acquiescing to keep the peace and avoid complaint is easier but sometimes irresponsible.

- When we must raise legitimate safeguarding concerns, even when the response is defensive.
- When refusal to accept important equipment or personal care for moving and handling the patient or pressure sore prevention puts patients at serious risk of harm.
- When working on weekend or evening ward cover or in acute admission areas and we are constantly approached by families. These conversations can be witnessed and attract other families, who may hover close by and compromise patients' confidentiality. If this happens when you are trying to get to a sick or dying patient or stay on top of a queue of admissions, saying "I can't stop now" is honest and necessary.

ERIK MCGREGOR/PACIFIC PRESS/GETTY

Another provision of the law set up a federal prevention and public health fund to help prevent chronic diseases such as heart disease and diabetes. It currently funds state public health and prevention programmes at $1bn (£0.8bn) a year and is scheduled to increase this amount to $2bn by 2025. Will this be wiped out under budget reconciliation?

The law also created an innovation centre within the Centers for Medicare and Medicaid Services to test strategies to improve healthcare quality while reducing costs. Its research and demonstration projects will have cost around $6bn by the end of the current fiscal year. Will this programme be deleted?

Finally, to incentivise the delivery of evidence based clinical preventive services, Obamacare mandated that, unlike other healthcare, all such services are to be provided with no deductibles or copayments from patients. Will these regulations, which also have attendant costs, be withdrawn?

All of this is to say that, as important as it has been for increasing access to health insurance coverage, Obamacare has many other valuable provisions that are at risk of revocation. Congress should bear them in mind too while considering what they are in such a rush to repeal.

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- When a patient's free decision to go home, even if this is risky, is being obstructed or subverted behind their back.

  Or when families expect a series of problems, some longstanding weeks or months before admission, that should be dealt with outside an inpatient setting to be resolved before they will accept discharge, however long it takes. Keeping someone in an acute care bed for such reasons puts them at risk of harms and complications of hospitalisation. It also denies beds to other patients with more acute needs.
- When discussing limits of care or palliative approaches, and families push for interventions such as resuscitation, artificial nutrition and hydration, or antibiotics, we should avoid complicity if there would be little gain or a risk of worsening or prolonging patients' distress, however well intentioned the request.

Families shouldn't be blamed for our pressures at work or their desire for information, involvement, and reassurance. But nor should clinicians be blamed for sticking up for patients, thinking of the wider health system, and for sometimes pushing back.

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References are in the version on bmj.com.

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BLOG OF THE WEEK Daoxin Yin

The impact of China's two child policy on gender bias in the medical job market

Winter is when government owned hospitals in China, which are major employers, recruit new doctors. Men are preferred in hospital employment, as they are elsewhere. Sometimes the preference for a male doctor is clearly written in job posts, and, more often than not, it has a role in the decision making process.

Female doctors in China are usually questioned on their commitment to work. They are often asked, either implicitly or explicitly, whether they are married or have any children. Sometimes women are made to justify that they can manage both work and their family life in the interview. Men rarely get asked these questions.

In January 2016 the Chinese government implemented a two child policy, replacing 36 years of a one child policy. I am concerned that the two child policy may exacerbate unfairness for women in the workplace. It could put female doctors at higher risk of being unfairly treated in job applications owing to the potential for a second maternity leave. Female medical graduates about to join the job market are of childbearing age; some of them have expressed their concerns and anxiety about encountering gender discrimination.

Female doctors could be at higher risk of being unfairly treated owing to the potential for a second maternity leave

I am not saying that the gender ratio should be 1:1 in each medical discipline—that would be irrational and may generate new discrimination. But fair employment should respect and consider a job candidate's capacity, aspirations, willingness, value, and mission instead of putting too much weight on gender. Like many social issues, gender inequity in healthcare employment is a systematic problem. Traditional culture portrays women as the main caregivers for babies and family. This concept has been internalised so that working women, including female doctors, take on the bulk of family responsibilities. Currently, government owned hospitals only recruit full time doctors and offer little flexibility on working time.

Empowering young female doctors is part of raising the position of all working women in China. National laws of gender equity in the workplace should be enacted and, more importantly, enforced. At the very least, putting a gender preference in job posts should be stopped.

Daoxin Yin, China editor, *The BMJ*

SMOKING

New Tobacco Control Plan is an issue of justice

The BMJ reports on our open letter to the prime minister and health secretary (Seven days in medicine, 7 January). The prime minister's commitment to "fighting against the burning injustice that if you're born poor, you will die on average nine years earlier than others" is welcome and achievable.

Major improvements can be achieved by reducing smoking rates among the most disadvantaged in society. This requires a comprehensive and sustained strategy. Many measures are self sustaining. But the government must also ensure adequate funding for the recurring costs of effective measures—mass media campaigns, smoking cessation services, and tackling tobacco smuggling.

Over a year has passed since the government's previous Tobacco Control Plan expired, and no publication date has been set for its successor. If the prime minister is really dedicated to social justice, she must commit to a new Tobacco Control Plan without further delay.

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Jane Dacre, Neena Modi, Helen Stokes-Lampard, Lesley Regan, Andrew Furber Simon Wessely, John Middleton on behalf of over 1100 healthcare professionals and public health experts

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Children need non-smoking support in schools

The Institute of Health Promotion and Education endorses the urgent need for a new Tobacco Control Plan. Smoking is the largest single preventable cause of ill health and death, causing harm to individuals and society.

A future plan needs to contain support for children. Mandatory personal, social, and health education programmes in all schools would ensure that children are provided with the key information and skills to make sound decisions about their health. Developing a new plan requires a sound knowledge of who is promoting tobacco and the tactics that they use.

Tobacco companies have tremendous power, and, despite the overwhelming medical evidence against cigarettes, companies are still able to sell their products.

Many health professionals are working hard to support smokers who want to quit, but they need national leadership. The government must renew the Tobacco Control Plan urgently.

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LETTER OF THE WEEK

Terminal prognosis for the NHS

I respond to Sarah Wollaston (Commentary, 7 January) as a consultant child and adolescent psychiatrist of more than 20 years.

I find it incomprehensible that a doctor is a member of a government that is deliberately defunding and destabilising the NHS. The prime minister talks about correcting social injustice but continues to lead a government that underfunds health and social care. These services cost more than they used to, and they need to be paid for. Whatever the real cost of healthcare, it hugely outstrips what the government provides. The higher the public shortfall, the less fair and ethical the system is.

Every month I sit in a meeting where we work out our "safe release of clinical funds"—a process repeated in every department in every trust across the nation. It is not safe to release clinical funds: it's just another way of cutting budgets. NHS England has, I believe, lost credibility because it presents as another government mouthpiece. The clinical basis for decision making is being eroded.

Worst of all, the government is not held to account and denies responsibility. Yet only the government has the power—the chequebook—to fund healthcare properly and to stop spinning underfunding as overspending. This means more public funding and higher taxes, which are unpopular. But without this the NHS's prognosis is terminal.

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SHARED DECISION MAKING

Future of shared decision making is electronic

We commend Hess et al for studying shared decision making for low risk chest pain in the emergency department (Research, 10 December). A clear, accessible pictographic decision aid can help us to communicate our thoughts clearly and give patients a better understanding of their situation.

Shared decision making is best suited for forks in the road, where neither course is clearly superior. But what is equivocal today may not be tomorrow.

The next generation of electronic tools for shared decision making might incorporate principles from learning healthcare systems. We envision tools that will update risk calculators based on the most recent evidence and tailor risk profiling to the appropriate population and setting. Patient preferences—their tolerance of risk, cultural affiliations, and previous shared decision making choices—might also be integrated. With a good decision aid, patient centred discussion takes only a minute. And we can't imagine a minute better spent.

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MEDICINE UNDER FIRE

Media portrayal of humanitarian crises

Sheather and Hawkins discuss "compassion fatigue" for humanitarian crises (Editorial, 17 December). Potential solutions must consider the role of the media, through which distant suffering is made visible.

Compassion fatigue is potentially the sum of three problems. First, a limited capacity to intervene has made people feel powerless. Second, media space constraints mean crises are ranked based on their newsworthiness. This is linked to wider global political interests and fosters public scepticism.

Last, meaningful indignation might only be triggered by individuals; accounts of wider human suffering are too abstract to provoke an equivalent response. Depicting the "mundane moments that belong to all humanity" allows observers to comprehend how such horror might affect them or their loved ones. We might begin to tackle compassion fatigue by advocating a more morally conscious, humanitarian journalism.

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